AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for manufacturing a Thin Film Inorganic Light Emitting Diode device, said method comprising the following steps, in order, :

(1) preparing a nanoparticle dispersion of ZnS doped with a luminescent centre by precipitation from appropriate aqueous solutions comprising zinc ions, sulfide ions and dopant ions,

(2) washing said dispersion of doped ZnS to remove non-precipitated ions,

either,

(3) mixing said washed dispersion of doped ZnS (n-type semiconductor) with a water-compatible p-type semiconductive polymer,

(4) coating said mixture, optionally after admixture with a binder, onto a first conductive electrode,

(5) applying on top of said coated layer resulting from step (4) a second conductive electrode, with the proviso that at least one of said first and second electrode is transparent,

or,

(3') coating on top of a first conductive electrode a double layer pack comprising, in either order,

(3'a) a layer containing a water-compatible p-type semiconductive polymer, and,

(3'b) a layer containing said washed dispersion of doped ZnS, optionally admixed with a binder,

(4') applying on top of said coated layer pack resulting from step (3') a second conductive electrode, with the proviso that at least one of said first and second conductive electrode is transparent, thereby resulting in said Thin Film Inorganic Light Emitting Diode device.

2. (Original) A method according to claim 1 wherein said precipitation of step (1) is performed according to the double jet principle whereby a first solution containing zinc ions and a second solution containing sulfide ions are added together to a third solution.

3. (Original) A method according to claim 2 wherein said first solution also contains said dopant ions.

4. (Original) A method according to claim 1 wherein said dopant ions are manganese ions.

5.(Original) A method according to claim 1 wherein said dopant ions are copper(I) or copper(II) ions.

6.(Currently Amended) Method according to claim 1 wherein said washing of said dispersion of doped ZnS is performed by an ultrafiltration step, ~~an~~ said ultrafiltration step and ~~said~~ a diafiltration step, or said diafiltration step.

7. (Previously Amended) Method according to claim 6 wherein said ultrafiltration step, said ultrafiltration step and said diafiltration step, or said diafiltration step is (are) performed in the presence of a compound preventing agglomeration of nanoparticles.

8. (Original) A method according to claim 1 wherein said water-compatible p-type semiconductive polymer is a polythiophene/polymeric polyanion complex.

9. (Original) A method according to claim 8 wherein said polythiophene is poly(3,4-ethylenedioxythiophene).

10. (Original) A method according to claim 8 wherein said polymeric polyanion is polystyrene sulphonate.

11. (Original) A method according to claim 1 wherein said first electrode is an Indium Tin Oxide (ITO) electrode.

12. (Original) A method according to claim 1 wherein said second conductive electrode is an aluminum electrode applied by vacuum deposition.

13. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device manufactured according to a method for manufacturing a Thin Film Inorganic Light Emitting Diode device, said method comprising the following steps, in order:

(1) preparing a nanoparticle dispersion of ZnS doped with a luminescent centre by precipitation from appropriate aqueous solutions comprising zinc ions, sulfide ions, and dopant ions,

(2) washing said dispersion of doped ZnS to remove non-precipitated ions,

(3) mixing said washed dispersion of doped ZnS (n-type semiconductor) with a water-compatible p-type semiconductive polymer,

(4) coating said mixture, optionally after admixture with a binder, onto a first conductive electrode,

(5) applying on top of said coated layer resulting from step (4) a second conductive electrode, with the proviso that at

least one of said first and second conductive electrodes is transparent thereby resulting in said Thin Film Inorganic Light Emitting Diode device.

14 (Currently amended). A method for manufacturing a Thin Film Inorganic Light Emitting Diode device, said method comprising the following steps, in order:

(1) preparing a nanoparticle dispersion of ZnS doped with a luminescent centre by precipitation from appropriate aqueous solutions comprising zinc ions, sulfide ions and dopant ions,

(2) washing said dispersion of doped ZnS to remove non-precipitated ions,

(3') coating on top of a first conductive layer a double layer pack comprising, in any order,

(3'a) a layer containing a water-compatible p-type semiconductive polymer, and,

(3'b) a layer containing said washed dispersion of doped ZnS, optionally admixed with a binder,

(4') applying on top of said coated layer pack resulting from step (3') a second conductive electrode, with the proviso that at least one of said first and second

conductive electrodes is transparent thereby resulting in said Thin Film Inorganic Light Emitting Diode device.

15(Previously entered). Method according to claim 14 wherein said precipitation of step (1) is performed according to the double jet principle whereby a first solution containing zinc ions and a second solution containing sulfide ions are added together to a third solution.

16(Previously entered). Method according to claim 15 wherein said first solution also contains said dopant ions.

17(Previously entered). Method according to claim 14 wherein said dopant ions are manganese ions.

18(Previously entered). Method according to claim 14 wherein said dopant ions are copper(I) or copper(II) ions.

19(Previously entered). Method according to claim 14 wherein said washing of said dispersion of doped ZnS is performed by an ultrafiltration step, an ultrafiltration step and a diafiltration step, or a diafiltration step.

20(Previously entered). Method according to claim 19 wherein said ultrafiltration step, said ultrafiltration step and said diafiltration step, or said diafiltration step is

(are) performed in the presence of a compound preventing agglomeration of nanoparticles.

21(Previously entered). Method according to claim 14 wherein said water-compatible p-type semiconductive polymer is a polythiophene/polymeric polyanion complex.

22(Previously entered). Method according to claim 21 wherein said polythiophene is poly(3,4-ethylenedioxythiophene).

23(Previously entered). Method according to claim 21 wherein said polymeric polyanion is polystyrene sulphonate.

24(Previously entered). Method according to claim 14 wherein said first electrode is an Indium Tin Oxide (ITO) electrode.

25(Previously entered). Method according to claim 14 wherein said second conductive electrode is an aluminum electrode applied by vacuum deposition.

26(Currently Amended). A Thin Film Inorganic Light Emitting Diode device manufactured according to a method for manufacturing a Thin Film Inorganic Light Emitting Diode device, said method comprising the following steps, in order:

(1) preparing a nanoparticle dispersion of ZnS doped with a

luminescent centre by precipitation from appropriate aqueous solutions comprising zinc ions, sulfide ions and dopant ions,

(2) washing said dispersion of doped ZnS to remove non-precipitated ions,

(3') coating on top of a first conductive layer a double layer pack comprising, in any order,

(3'a) a layer containing a water-compatible p-type semiconductive polymer, and,

(3'b) a layer containing said washed dispersion of doped ZnS, optionally admixed with a binder,

(4') applying on top of said coated layer pack resulting from step (3') a second conductive electrode, with the proviso that at least one of said first and second conductive electrodes is transparent thereby resulting in said Thin Film Inorganic Light Emitting Diode device.